PCV13 whereas it was associated with an incremental cost of approximately £9 million vs. NoVac. PPV23 dominated PCV13 from both the third-party payer (TPP) and the societal perspectives. When compared to NoVac, the incremental CE ratio (ICER) was estimated at £14,813 and £13,497/QALY gained, from the TPP and the societal perspective, respectively. **CONCLUSIONS:** The model suggests that vaccinating with PPV23 is cost-effective when compared to both PCV13 and NoVac. As PPV23 covers 80%-90% of all serotypes causing IPD, it is still cost-effective despite the recent reduction in IPD incidence in adults. The assumptions around the efficacy of PCV13 are a substantial source of uncertainty.

PIN65

COST-EFFECTIVENESS OF FIRST-LINE ANTIRETROVIRAL REGIMENS FOR HUMAN IMMUNODEFICIENCY VIRUS (HIV) IN COLOMBIA: AN ANALYSIS OF LOPINAVIR/RITONAVIR (LPV/R) AND DARUNAVIR PLUS RITONAVIR (DRV+RTV) IN TREATMENT-NAÏVE PATIENTS

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OBJECTIVES: Current antiretroviral (ARV) therapy has transformed HIV from an acute to a chronic disease. Consequently, there are more patients living with HIV and the cost burden to societies that provide lifetime health care, such as Colombia, is increasing. The value assessment of ARV regimens, therefore, requires a lifetime horizon to accommodate implications of failure, resistance, switching and survival. The objective was to perform a cost-effectiveness analysis of two first-line protease inhibitor-based regimens for HIV-infected, ARV-naïve patients in Colombia: LPV/r versus DRV+RTV. **METHODS:** A previously published discrete event simulation model of first-line LPV/r and DRV+RTV was adapted to comprehensively represent HIV management in Colombia. The impact of initial treatment on CD4 cell count, viral load, adherence, virologic suppression/failure/rebound, acquired resistance, and ensuing treatment changes were based on ARTEMIS trial data and the clinical literature. Up to 3 regimen changes were permitted over the model's lifetime horizon. Cardiovascular risk was based on the Framingham risk score. Clinical measures included AIDS related and non-AIDS related events, AEs, time on sequential therapies, and cardiovascular events. Outcomes included lifetime costs and quality adjusted life years (QALYs), discounted at 3% per annum. Perspective was the Colombian national health care system. Costs for ARVs and medical management were referenced to Colombia pesos (COP). **RESULTS:** Initiating LPV/r over DRV+RTV saved COP7,845,894 per patient over a lifetime with similar life expectancy (+0.02 years; -0.03 QALYs). Similar rates of death, AIDS events, cancer, and lipoatrophy/lipodystrophy were predicted for both groups. Lifetime cost of cardiovascular events were COP70,020 per patient less in the LPV/r arm. LPV/r was cost saving at 5 years (COP11,311,677) and was cost-effective across multiple sensitivity analyses. **CONCLUSIONS:** Initiating HIV infected, ARV-naïve patients on a LPV/r-based regimen compared to a DRV+RTV-based regimen is cost saving and provides similar life expectancy. Sensitivity analyses provided confidence around these point estimates.

PIN66

COST EFFECTIVENESS ANALYSIS OF VACCINATION WITH 13-VALENT (PCV13) AND 23-VALENT (PPV23) PNEUMOCOCCAL VACCINES FOR SENIOR ADULTS IN SÃO PAULO STATE, BRAZIL – PUBLIC PERSPECTIVE

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OBJECTIVES: To evaluate the cost effectiveness of vaccinating the Brazilian state of São Paulo's population 60 years of age and older with the 13-valent pneumococcal conjugate vaccine (PCV13) in comparison to the 23-valent pneumococcal polysaccharide vaccine (PPV23), each as a single dose, from the public payer perspective. **METHODS:** In order to estimate the pneumococcal disease costs and impact over a 40-year time horizon period, including acute meningitis (AM), invasive pneumococcal disease (IPD), hospitalized pneumonia (HP) and non-complicated pneumonia (NCP), a patient-level microsimulation model simulating vaccination and outcomes of one cohort of 4.768.202 individuals 60 years of age and older was adapted. The probabilities and direct medical costs were extracted from literature review and national databases, with costs presented in US$2011. The effectiveness measures were expressed as cases of pneumococcal diseases avoided, overall deaths avoided, and life years (LYs) saved. Effectiveness of PCV13 was derived from studies in children and adjusted for age and immune status in the elderly; PPV23 was assumed not to impact pneumonia based on published meta-analyses. Probabilistic sensitivity analyses were conducted considering key variables. Discount rate of 5% was applied. **RESULTS:** Vaccinating with PCV13 prevents 281 AM, 3.615 IPD, 56.284 HP, 31.553 NCP and 15.742 deaths, saving 90.596 LYs compared to PPV23. Total costs including vaccination and medical costs resulted in US$14.449.125 less for PCV13 compared to PCV23 (US$786.747.906 vs. US$772.298.781). The model showed robustness through sensitivity analyses. **CONCLUSIONS:** The analysis suggests that vaccinating adults with PCV13 in Brazil is cost-saving compared to PPV23. The results in economic and disease burden are substantial and they support the decision making in favor of PCV13 for its high impact in public health.

PIN67

COST MINIMIZATION COMPARISON OF A VACCINATION WITH CAMPAIGN PROGRAM FOR CORPORATIONS USING PCV13 VESUS FREE PCV10 WITH PAID CAMPAIGN

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OBJECTIVES: The Brazilian National Immunization Program currently offers 10-valent Pneumococcal Conjugated Vaccine (PCV10) to all children less than 5 years of age for free. The current study was developed to compare the costs of PCV13 vaccination plus campaign for corporations, versus a hypothetical scenario where the corporation would incur in the expenditures to do the campaign as proposed for PCV13 while vaccinating with free PCV10 under the corporative payer perspective. **METHODS:** A cost minimization analysis was developed considering vaccination costs, campaign and health management costs, wage and productivity loss from employee absence due to child disease and the vaccinations. Clinical events were retrieved from Pepe et al 2009, absence days due to health events were retrieved from the average hospitalization days from DATASUS 2012 and ambulatory use was limited to 1 absence day. Total employee absence days were halved assuming a partner outside the company to take care of the sick child and to take it to the vaccinations. Average wage was retrieved from the Brazilian Institute for Geography and Statistics 2011 data (IBGE) and production was estimated from the indicator 'revenue generated by the employee', from a market research developed by Exame magazine in 2011 using IBGE and the Brazilian Central Bank data. The base case considered a real scenario from a large corporation in Brazil. Values were expressed in 2011USD. **RESULTS:** Independent campaign with zero cost PCV10 and PCV13 vaccination plus campaign totaled 67,90USD and 114,65USD per employee respectively. Productivity loss was estimated to be 879,07USD and 667,89USD per employee for PCV10 and PCV13 respectively. Considering all evaluated costs, PCV10 and PCV13 totaled 946,97USD and 782,54USD per employee respectively. **CONCLUSIONS:** The PCV13 vaccination plus campaign initiative is estimated to save costs (164,42USD/employee), when compared to developing an independent campaign, mainly driven by productivity loss at the corporative payer perspective.

PIN68

COST-MINIMIZATION ANALYSIS OF CASPOFUNGIN VERSUS LIPOSOMAL AMPHOTERICIN B FOR THE TREATMENT OF FEBRILE, NEUTROPENIC PATIENTS WITH A PRESUMED FUNGAL INFECTION IN THE NETHERLANDS

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OBJECTIVES: To provide an estimate of the treatment related costs of caspofungin versus liposomal amphotericin B (L-AmB) in febrile, neutropenic patients with a presumed fungal infection in the Netherlands. **METHODS:** : A cost-minimization analysis (CMA) was conducted based on the results of a head-to-head randomized clinical trial, in which caspofungin (70mg on day 1, 50mg daily thereafter) was compared to liposomal amphotericin B (3-5mg/kg daily). The trial showed no significant difference in success rates (adults: 33.9% for caspofungin and 33.7% for L-AmB); therefore, the two drugs can be considered equally efficacious. Main assumptions in the CMA were that no drug was spilled and that the difference in drug administration costs was negligible and could therefore be ignored. The robustness of the predicted cost-estimates was tested within several scenario analyses, including an analysis in a paediatric population. **RESULTS:** In the base case analysis, treatment with caspofungin resulted in cost savings of €6,564 per infected adult patient; mainly due to lower drug acquisition costs. These savings increased to €8,024 in a scenario analysis assuming that partly emptied vials will not be stored and used for another administration (ie. spillage of drugs). An additional scenario revealed that only at extreme average treatment durations of one drug, a cost neutral result would be obtained. Comparing both drugs in a paediatric population, incremental costs of caspofungin over L-AmB ranged from -€2,319 to +€1,291 for an average Dutch child aged 16 (weight 62kg; body surface area 1.725m^2) and 2 (weight 12.5kg; body surface area 0.555m^2) years old respectively. **CONCLUSIONS:** The present analysis shows that treatment with caspofungin results in considerable cost savings compared to L-AmB for the treatment of febrile, neutropenic adult patients with a presumed fungal infection in the Netherlands. In pediatric patients cost consequences are depending on body surface area.

PIN69

COST UTILITY ANALYSIS OF 13-VALENT PNEUMOCOCCAL CONJUGATE VACCINE IN MALAYSIA

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OBJECTIVES: *Streptococcus pneumonia* causes invasive pneumococcal diseases (IPD), meningitis and bacteremia, and non-invasive diseases such as pneumonia and acute otitis media (AOM), leading to high morbidity and mortality in infants and elderly in Malaysia. To examine the health and economic impacts of routinely vaccinating infants with 13-valent pneumococcal vaccine (PCV13) compared to 10-valent pneumococcal conjugate vaccine (PCV10) or no vaccine in Malaysia. **METHODS:** A Markov model was adapted with local data to evaluate the potential public health and economic impact of routine vaccination of infants with PCV10 or PCV13 over a 10-year time horizon, assuming a 3-dose regimen at 2, 4, 12 months of age and coverage of 90%. Direct effectiveness of PCV13 and PCV10 was estimated from clinical trial data while indirect (herd) effectiveness was estimated from U.S. surveillance data. Epidemiology, serotype coverage, and costs were from published studies and government websites. One-way and multivariate probabilistic sensitivity analyses were performed to test the robustness of model assumptions. **RESULTS:** Compared to no vaccination, universal infant PCV13 vaccination would avoid 19,833 cases of IPD, 832,687 and 1,705,984 cases of hospitalized and non-hospitalized pneumonia respectively, and 135,675 cases of AOM with the preven-